EAST

	Type	Hits	Search Text
1	BRS	3941	ribonuclease
2	BRS	6277	dna adj synthesis
3	BRS	762	ribonuclease and (dna adj synthesis)
4	BRS	11965	polymerase adj chain adj reaction
5	BRS	492	(ribonuclease and (dna adj synthesis)) and (polymerase adj chain adj reaction)
6	BRS	0	method adj of adj dna adj synthesis
7	BRS	17360	pcr
8	BRS	0	method adj of adj dna adj synthesis.clm.
9	BRS	122	(dna adj synthesis).clm.
10	BRS	232	ribonuclease.clm.
11	BRS	0	((dna adj synthesis).clm.) and ribonuclease.clm.
12	BRS	9	ribonuclease and ((dna adj synthesis).clm.)
13	BRS	996	polymerase adj chain adj reaction.clm.
14	BRS	5	ribonuclease.clm. and (polymerase adj chain adj reaction.clm.)
15	BRS	7490	synthesis.clm.
16	BRS	11	ribonuclease.clm. and synthesis.clm.

STN

(FILE 'HOME' ENTERED AT 06:56:04 ON 22 DEC 2000)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, EMBASE, JAPIO, PATOSWO, PATOSEP' ENTERED AT 06:56:35 ON 22 DEC 2000

L1	716	S DNA SYNTHESIS AND RIBONUCLEASE
L2	25	S (DNA SYNTHESIS AND RIBONUCLEASE)/TI
L3	12	DUP REM L2 (13 DUPLICATES REMOVED)
L4	79	S METHOD OF DNA SYNTHESIS
L5	0	S RIBONUCLEASE AND L4
L6	9	S L4 AND RNA
L7	5	DUP REM L6 (4 DUPLICATES REMOVED)
L8	576064	S (POLYMERASE CHAIN REACTION) OR PCR
L9	17783	S RIBONUCLEASE/TI
L10	46375	S (POLYMERASE CHAIN REACTION)/TI
L11	26	S L9 AND L10
L12	7	DUP REM L11 (19 DUPLICATES REMOVED)
L13	0	S BIOTENHNIQUES
L14	373	S BIOTECHNIQUES
L15	0	S L2 AND L14
L16	2	S L10 AND L14
L17	1957	S L8 AND RIBONUCLEASE
L18	70	S L10 AND L17
L19	28	DUP REM L18 (42 DUPLICATES REMOVED)
L20	0	S L19 AND L14

L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2000 ACS
AN 1993:161897 CAPLUS
DN 118:161897
TI A 'one tube reaction' for synthesis and amplification of total cDNA from small numbers of cells
AU Don, Robert H.; Cox, Peter T.; Mattick, John S.
CS Cent. Mol. Biol. Biotechnol., Univ. Queensland, Brisbane, 4072, Australia
SO Nucleic Acids Res. (1993), 21(3), 783
CODEN: NARHAD; ISSN: 0305-1048
DT Journal
LA English
AB While the polymerase chain reaction enables generation of large amts. of DNA, it has still been difficult to synthesize total cDNA from small nos. of cells in a form which can be amplified by PCR. Several methods for synthesis of total cDNA from small amts. of starting material involve many DNA pptn. steps to change reaction buffers or to remove mols. which may interfere with subsequent reactions. These pptns. result in progressively diminished yields of potential template cDNA for amplification. A new protocol was developed which is based on the use of KGB buffer for all enzymic steps and which eliminates the need for pptn. steps. While originally described as a universal buffer for restriction steps, all modification enzymes required for cDNA synthesis have close to 100% activity in 0.5 .times. KGB buffer. Total **RNA** was prepd. by a scaled down acid-phenol extn. and the **RNA** was resuspended in KGB buffer plus oligodT, dNTPs and MMLV reverse transcriptase. After incubation for 30 min at 42.degree., the reaction was chilled to 4.degree. C and KGB buffer plus E. coli DNA polymerase 1 and RNaseH was added. The second strand was synthesized. Ends of double stranded DNA were polished by incubation with T4 DNA polymerase. Linkers were added to the double stranded cDNA together with ATP and T4 DNA ligase. PCR was carried out with a 21 mer oligonucleotide and Taq polymerase. This protocol is ideal for amplification of cDNA for subtractive hybridization.

DUPLICATE 2

L19 ANSWER 8 OF 28 MEDLINE
AN 97399636 MEDLINE
DN 97399636
TI Elimination of background signals in a modified **polymerase chain reaction**-based reverse transcriptase assay.
AU Maudru T; Peden K
CS Laboratory of Retrovirus Research, Center for Biologics Evaluation and Research, Food and Drug Administration, Bethesda, MD 20892, USA.
SO JOURNAL OF VIROLOGICAL METHODS, (1997 Jul) 66 (2) 247-61.
Journal code: HQR. ISSN: 0166-0934.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199711
AB Three highly sensitive reverse transcriptase (RT) assays were recently published that are at least one million times more sensitive than conventional RT assays. These assays derive their high sensitivities through the ability to amplify the complementary DNA (cDNA) product of the RT reaction by the **polymerase chain reaction** (**PCR**). We describe a modified **PCR**-based RT (PBRT) assay that retains the high sensitivities of the original assays while reducing their inherent background signals. The background signal of the PBRT assay was found to be due to an intrinsic RNA-dependent DNA polymerase activity of the Taq DNA polymerase, the enzyme used for the **PCR**. It could be eliminated by inserting a **ribonuclease** digestion step prior to amplifying the cDNA product of the RT reaction by **PCR** and by using a thermostable DNA polymerase identified as having reduced RNA-dependent DNA polymerase activity. Comparable results were obtained using three RNA templates with two purified RT enzymes. This modified assay is capable of detecting reliably between 10 and 100 molecules of RT, which is equivalent to between 1 and 10 retrovirus particles.

L19 ANSWER 11 OF 28 CAPLUS COPYRIGHT 2000 ACS
AN 1996:572067 CAPLUS
DN 125:214233
TI Use of exonuclease and/or glycosylase as supplements to thermally labile anti-polymerase antibody to increase specificity in **polymerase chain reaction**
IN Sutherland, John W. H.; Patterson, David R.
PA Johnson and Johnson Clinical Diagnostics, Inc., USA
SO Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 726324	A2	19960814	EP 1996-300791	19960206
	EP 726324	A3	19961127		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CA 2168712	AA	19960808	CA 1996-2168712	19960202
	NO 9600484	A	19960808	NO 1996-484	19960206
	FI 9600540	A	19960808	FI 1996-540	19960206
	AU 9643391	A1	19960815	AU 1996-43391	19960206
	AU 709788	B2	19990909		
	JP 08266298	A2	19961015	JP 1996-20082	19960206
	US 5985619	A	19991116	US 1996-643282	19960508
PRAI	US 1995-385019		19950207		

AB The present invention provides admixts. and methods for **PCR** amplification of a target nucleic acid in which amplification efficiency is increased by including an antibody specific for a polymn. agent and at least one of an exonuclease and a glycosylase in the **PCR** reaction mix. Kits for amplification of a target nucleic acid are also provided.

L12 ANSWER 7 OF 7 MEDLINE DUPLICATE 6
AN 90166676 MEDLINE
DN 90166676
TI **Ribonuclease** A cleavage combined with the **polymerase chain reaction** for detection of the Z mutation of the alpha-1-antitrypsin gene.
AU Abe T; Takahashi H; Holmes M D; Curiel D T; Crystal R G
CS Pulmonary Branch, National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, Maryland 20892..
SO AMERICAN JOURNAL OF RESPIRATORY CELL AND MOLECULAR BIOLOGY, (1989 Oct) 1 (4) 329-34.
Journal code: AOB. ISSN: 1044-1549.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199006
AB Homozygous inheritance of the Z mutation (exon V, Glu342GAG----Lys342AAG), the most common cause of alpha-1-antitrypsin (alpha 1AT) deficiency, is associated with a high risk for emphysema and liver disease. This study presents a rapid and accurate approach to definitive genotypic diagnosis of the Z homozygous state using a combination of polymerase chain reaction amplification of exon V of the alpha 1AT gene and ribonuclease cleavage of an exon V-specific antisense RNA probe. Taking advantage of the concept that ribonuclease A will cleave at points of mismatch of RNA-DNA hybrids, a 0.79 kb antisense RNA probe was designed with complementarity to the sense strand of exon V of the alpha 1AT gene (the site of the Z mutation) along with small regions of the 5' and 3' flanking sequences. After amplification of exon V of the alpha 1AT gene from genomic DNA by the polymerase chain reaction, the amplified DNA was analyzed by hybridization to a 32P-labeled exon V antisense RNA probe followed by digestion with RNase A. Any substitution mutations resulting in DNA-RNA mismatch were detected by evaluation with polyacrylamide gel electrophoresis under denaturing conditions followed by autoradiography (expected fragment lengths: 0.33 kb when the exon V probe hybridized to the normal amplified genomic DNA, 0.25 and 0.08 kb fragments when the exon V probe hybridized to the amplified genomic DNA with the Z mutation). Double-blinded evaluation of genomic DNA of 36 individuals (phenotypes MM n = 14, MZ n = 5, ZZ n = 16, ZNull n = 1; included among the "M" alleles were representatives of all the major normal M alleles) demonstrated definitive diagnosis of the Z mutation with absolute specificity for all 36 specimens, i.e., ZZ homozygotes, MZ heterozygotes, and normals were all detected accurately. This approach should be useful not only for screening for the Z mutation of the alpha 1AT gene, but by this type of analysis, mutational alterations of the alpha 1AT gene can be screened for without prior knowledge of the sequence changes and without complex cloning and sequencing methods.

DUPLICATE 3

L12 ANSWER 4 OF 7 MEDLINE
AN 93119653 MEDLINE
DN 93119653
TI Application of the **polymerase chain reaction** to the **ribonuclease** protection assay.
AU Yang H; Melera P W
CS Department of Biological Chemistry, University of Maryland School of Medicine, Baltimore 21201..
NC CA-49538 (NCI)
SO BIOTECHNIQUES, (1992 Dec) 13 (6) 922-7.
Journal code: AN3. ISSN: 0736-6205.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199304
AB We have developed a modified RNase protection assay in which the antisense RNA probe is prepared from a PCR-amplified DNA template rather than from a linearized plasmid DNA template. In this assay, an RNA polymerase promoter sequence is attached to the 5' end of the antisense PCR primer. Using this modified antisense primer in conjunction with the paired sense primer, PCR amplification generates a linear DNA template that includes an RNA polymerase promoter sequence. Transcription in vitro initiated by the incorporated promoter in the presence of RNA polymerase and ribonucleotide triphosphates produces a radiolabeled run-off antisense RNA transcript, which can then be used as probe for RNase protection analysis. Probes generated by this method obviate the need to subclone DNA sequences into transcription vectors for synthesis of antisense transcripts. Due to the simplicity of its design and the lack of need for subcloning, this strategy offers greater flexibility than conventional methods for the production of single-stranded RNA probes, and thus facilitates the implementation of the ribonuclease protection assay.

DUPLICATE 2

L12 ANSWER 2 OF 7 MEDLINE
AN 95283050 MEDLINE
DN 95283050
TI **Ribonuclease** protection assay on in situ hybridization tissue: an alternative to **polymerase chain reaction** analysis.
AU Dixon E P; Bales K R; Johnstone E M; Santerre R F; Little S P
CS Lilly Research Laboratories, Division of Eli Lilly and Company, Indianapolis, Indiana 46285-0424, USA..
SO ANALYTICAL BIOCHEMISTRY, (1995 Mar 1) 225 (2) 353-6.
Journal code: 4NK. ISSN: 0003-2697.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199509

AN 91166976 MEDLINE
DN 91166976
TI A high-performance system for automation of the **polymerase chain reaction** [published erratum appears in **Biotechniques** 1991 Mar;10(3):335].
AU Haff L; Atwood J G; DiCesare J; Katz E; Picozza E; Williams J F; Woudenberg T
CS Perkin-Elmer Corporation, Norwalk, CT 06859-0251..
SO BIOTECHNIQUES, (1991 Jan) 10 (1) 102-3, 106-12.
Journal code: AN3. ISSN: 0736-6205.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199106
AB A high-performance PCR system has been developed which reduces the time required for PCR, increases the throughput, reduces reagent consumption and ensures reproducibility of amplification. Integration of sophisticated temperature control with optimally designed vessels has resulted in an amplification system which produces unique benefits. These include rapid amplification, the elimination of the need for oil, even for small volumes, and a microplate format which provides liquid handling automation benefits.

L3 ANSWER 2 OF 12 MEDLINE DUPLICATE 2
AN 88080469 MEDLINE
DN 88080469
TI Multiple mechanisms for initiation of ColE1 DNA replication: **DNA synthesis** in the presence and absence of **ribonuclease** H.
AU Dasgupta S; Masukata H; Tomizawa J
CS Laboratory of Molecular Biology, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Maryland 20892..
SO CELL, (1987 Dec 24) 51 (6) 1113-22.
Journal code: CQ4. ISSN: 0092-8674.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 198804
AB A transcript (RNA II) of plasmid ColE1 that hybridizes with the template DNA is cleaved by RNAase H and used as a primer by DNA polymerase I. However, the plasmid can replicate in bacteria lacking both enzymes, apparently using a different mechanism of initiation of replication. Here we report in vivo and in vitro studies on initiation of DNA replication in the presence or absence of either or both enzymes. Hybridization of RNA II with the template DNA is always required for initiation. Hybridized RNA II is cleaved by RNAase H to form a primer or used as a primer without cleavage by RNAase H. Hybridization also creates a single-stranded region on the nontranscribed strand that can serve as a template for synthesis of the lagging strand in a reaction that does not require DNA polymerase I. Lagging strand synthesis terminates 17 nucleotides upstream of the normal replication origin, forcing unidirectional replication.